IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~ or with double brackets [[ ]] where the text being deleted contains a hyphen "-" or equal sign "=" that would be obscured by ~~strikethrough~~ as permitted by 37 CFR 1.121(b)(1)(ii) and MPEP 714(II)(B) (see MPEP page 700-239).

Please REPLACE paragraph [0001] on page 1 with the following amended paragraph:

[0001]   This application is a ~~Continuation Application~~ continuation of Application No. 10/107,147 filed on March 28, 2002, now ~~pending~~ U.S. Patent No. 6,741,535, which is a ~~Divisional Application~~ division of Application No. ~~09/610,695,~~ 09/610,695 filed on July 5, 2000, now U.S. Patent No. 6,744,713, which is a ~~Divisional Application of Parent~~ division of Application No. ~~09/333,520,~~ 09/333,520 filed on June 15, 1999, now ~~pending~~ U.S. Patent No. 6,724,705. This application also claims the benefit of Korean Application Nos. ~~98-22390, 98-~~ 22390 filed on June 15, 1998; ~~98-23917,~~ 98-23917 filed on June 24, 1998; ~~98-39727,~~ 98-39727 filed on September 24, 1998; ~~98-54190,~~ 98-54190 filed on December 10, 1998; and ~~99-4679,~~ 99-4679 filed on February 10, 1999, in the Korean ~~Patent~~ Industrial Property Office, now the Korean Intellectual Property Office, the disclosures of which are incorporated in the present application.

Please REPLACE paragraphs [0005] and [0006] on pages 1 and 2 with the following amended paragraph:

[0005]   Three types of cartridges for a DVD-RAM are defined as follows. In the Type 1 disc cartridge, a single sided disc or double sided disc is installed in the cartridge and the installed disc ~~can not~~ cannot be taken out of the case. In the Type 2 cartridge, a single sided disc is installed and the installed disc can be taken out of the case. However, when the disc is taken out of the case once, a sensor hole capable of sensing the removal of the disc is permanently changed into an open state, so that the sensor hole cannot be changed into a closed state again. Thus, it can be determined whether or not the disc has been taken out of the case. Also,

in the Type 3 cartridge, a sensor hole capable of determining whether or not a disc has been taken out of the case is open in response to the disc being taken out of the case, so the disc can be taken out of or put into the case without restrictions.

[0006]   Also, in each of Types 1 through 3, the cartridge has a write-inhibit hole (alternatively called ~~"recognition~~ "recognition" switch for write protection") and according to the standard at page PH-69, writing is possible when the write-inhibit hole is closed and is impossible when the write-inhibit hole is open. That is, when a user intends to protect data written by the user from unwanted overwriting or erasing, the corresponding write-inhibit hole in a closed state is changed into an open state, such that a recording apparatus cannot record to the disc of the corresponding cartridge.

Please REPLACE paragraph [0009] on page 2 with the following amended paragraph:

[0009]   Also, there are many ~~DVD-related~~ DVD-related specifications such as a DVD-ROM specification (DVD specification for ~~Read-Only~~ Read-Only Memory), and a DVD-R specification (DVD specification for Recordable Disc). Also, many specifications for rewritable DVD, which are not established yet, can be considered, e.g., a DVD specification for a rewritable and readable disc, which is very similar to the DVD-R specification, and a DVD specification for a disc with enhanced density. Such a series of specifications with the prefix of DVD are called the ~~"DVD family."~~ "DVD family."

Please REPLACE paragraph [0018] on page 4 with the following amended paragraph:

[0018]   To achieve the third object of the present invention, there is provided a write protection method for an optical disc recording and/or reproducing apparatus, wherein data recorded on a recordable or reproducible recording medium including a Lead-in area, a Lead-out area and a user data area is protected from unwanted overwriting or erasing, the method comprising the steps ~~of:~~ of (a) checking [[write-protection]] write protection information stored on

the recording medium; and (b) prohibiting writing of data on the recording medium according to the write protection information.

Please REPLACE paragraph [0022] on pages 5 and 6 with the following amended paragraph:

[0022]   FIG. 2 shows the structure of a disc according to the DVD-RAM specification. The disc comprises three parts, i.e., a Lead-in area, a user data area and a Lead-out area, according to the aspect of function. Also, the disc can be classified into a rewritable area, an unwritable area and a mirror area distinct from the rewritable area and the unwritable area. In particular, the Lead-in area contains a read-only zone in the innermost part, which is an unwritable embossed data zone having pits, and a rewritable data zone following the ~~read-only~~ read-only zone, in which both recording and playback are possible. Meanwhile, the Lead-out area and the user data area are only formed of the rewritable data zone. The read-only zone of the Lead-in area contains information about physical specifications of the disc. The rewritable data zone of each of the Lead-in area and the Lead-out area contain two defect management areas ~~DMA 1,~~ DMA 1 and DMA 2, or DMA 3 and DMA 4, in which information about disc defects is written, a disc test zone for use by a disc manufacturer in checking the status of the disc, a drive test zone for testing recording and reproduction operations in a recording/reproducing apparatus, a guard track zone for connecting each zone, and a disc identification zone.

Please REPLACE paragraphs [0026] and [0027] on pages 6 and 7 with the following amended paragraphs:

[0026]   In the byte position 3, i.e., BP3, of the disc definition structure (DDS), a disc certification flag as shown in FIG. 3A is present, and the disc certification flag comprises "In Process" information indicating the initialization state of the disc, a "User certification" flag indicating whether the disc is certified by a user, and a "Disc manufacturer certification" flag indicating whether the corresponding disc is certified by a disc ~~manufacturer, and~~ manufacturer.

The disc certification flag information written in the byte position BP3 is information about the entire disc.

[0027]   Also, in the byte positions 16 to 39, ~~BP16BP39~~ i.e., BP16~BP39, of the disc definition structure (DDS), each byte has a group certification flag as shown in FIG. 3B in an identical configuration. The byte positions ~~BP16BP39~~ BP16~BP39 have initialization information about 24 recordable areas, i.e., ~~a group~~ groups, defined in the DVD-RAM specification version 1.0. That is, each group certification flag has "In Process" information indicating the initialization state of the corresponding group and a "User certification" flag indicating whether the disc is certified by a user. ~~Here, the group refers to~~ The groups are specific recordable areas of the disc.

Please REPLACE paragraphs [0030]-[0032] on page 8 with the following amended paragraphs:

[0030]   The states of the bits b4 and b3 of the disc certification flag, and ~~those~~ the states of the ~~bit~~ bits b4 and b3 of the group certification flag, are shown in Table 1.

Table 1

disc certification flag		group certification flag		states
b4	b3	b4	b3	
0	0	0	0	No write protection
0	0	1	0	Given group is write protected
1	0	~~Don=t care~~ <u>Don't care</u>		Soft write protected on entire disc
1	1			Hard write protected on entire disc

[0031]   In the above Table 1, soft write protection means that write protection can be released, that is, that the write protection state can be changed to a rewritable state by setting

the corresponding bit b4 to A0" "0". Also, hard write protection means that write protection is applied to the Lead-out area as well as to the Lead-in area, so that the write protection state can not cannot be restored to the rewritable state.

[0032]   In the hard write protection for the group, making a part of the disc hard [[write-protected]] write protected does not provide advantages to a user in use, rather than in a technical aspect, and particularly, there is a problem of processing in the corresponding group when the entire disc is reinitialized. Thus, it is unfavorable to set the hard write protection for the group.

Please REPLACE paragraph [0035] on page 9 with the following amended paragraph:

[0035]   In such a case, if either one of the disc or the case is write protected, it is preferable to operate to be suitable suitably for the write protection state. This is because [[in the user=s position it]] from the user's position, it is preferable that the content of data be checked again without overwriting, rather than important data being damaged or erased through overwriting.

Please REPLACE paragraph [0042] on page 10 with the following amended paragraph:

[0042]   FIGS. 6A and 6B are flowcharts illustrating a [[write-protection]] write protection method according to a first embodiment of the present invention. First, it is checked whether a disc is installed in a case (step S101), and if the disc is installed in the case, the state of the write-inhibit hole of the case is checked (step S102). That is, when the write-inhibit hole is closed, it means that cartridge is not write protected. When the write-inhibit hole is open, it means that the cartridge is write protected.

Please REPLACE paragraph [0045] on page 10 with the following amended paragraph:

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[0045]   If the write protection flag of the disc certification flag is set as a write protection state in the step S105, or if one of either the disc or the case indicates the write protection state even though both the [[write-protection]] <u>write protection</u> states of the disc and the case do not match in the step S106, it is checked whether the disc is set to a "hard write protection" state (step S107). If the disc is set to the "hard write protection" state, data writing to the entire disc including the Lead-in area and the Lead-out area in addition to the user data area is prohibited (step S108). Otherwise, data writing in the user data ~~area, and except~~ <u>area, except</u> for the drive test zone and the defect management area (DMA), is prohibited (step S109).

Please REPLACE paragraph [0047] on page 11 with the following amended paragraph:

[0047]   The write protection method illustrated in FIGS. 6A and 6B corresponds to the case of using the disc certification flag containing the hard write protection flag shown in FIG. 4A, and the group certification flag shown in FIG. 4B. When the disc certification flag of FIG. 5A and the group certification flag of FIG. 5B are used, the steps S107 and S108 illustrated with reference to FIGS. 6A are not performed. When the disc certification flag is set to the ~~"write-protection"~~ <u>"write protection"</u> state in the step S105, writing data in the user data area is prohibited in step S109.

Please REPLACE paragraph [0052] on page 12 with the following amended paragraph:

[0052]   The method of updating the [[write-protection]] <u>write protection</u> information, illustrated in FIG. 7, can be performed when a bare disc is inserted or a disc in a case is inserted, and can be performed after the [[write-protection]] <u>write protection</u> is controlled using the write protection information as illustrated with reference to FIGS. 6A and 6B.

Please REPLACE paragraph [0071] on page 16 with the following amended paragraph:

[0071] In the write protection information according to the present invention, 00b indicates that the disc is not write protected, 01b indicates that the entire disc is write protected (hard write protection), and 02b indicates that the entire disc except for a part of the disc (e.g., the PCA) is write protected (soft write protection). In the present embodiment, the [[write-protection]] write protection information indicates that the entire disc is write protected or is not write protected. However, the RMD field of FIG. 13 is written connected to the previous data whenever new data is written, so that the [[write-protection]] write protection can be set for only the written data corresponding to the RMD.

Please REPLACE paragraph [0073] on page 16 with the following amended paragraph:

[0073] Since the write protection information cannot be updated in the [[once-writable]] write-once DVD-R, in consideration ~~of the consistency~~ of consistency with the DVD family, write protection information can be indicated through ~~finalization that means the writing on~~ finalization, which means writing in the defined Lead-in area and Lead-out area. ~~"Finalization"~~ "Finalization" means the completion of writing in the Lead-in area and the Lead-out area as well as in the user data [[area, of a once-writable]] area of a write-once DVD-R disc. That is, the fact that the finalization has been performed (completed) indicates the DVD-R is [[write-protected]] write protected. Otherwise, it means that there is no write protection.

Please REPLACE paragraph [0078] on page 17 with the following amended paragraph:

[0078] When the disc is not installed in the case in step S301, or when the state of the write-inhibit hole is checked in step S302, the [[write-protection]] write protection flag of the disc is checked (step S303). That is, a write protection flag within RMD field 0 is checked.

Please REPLACE paragraph [0080] on page 17 with the following amended paragraph:

[0080] If the write protection flag of the disc is set to the "write protection" state in step S305, or after the step 306, that is, if either the disc or the case is in a "write protection" state even though the write protection information of the disc does not match the state of the write-inhibit hole of the case, it is determined whether the disc is set to the "hard write protection" state (step S307). If the disc is in the "hard write protection" state, the entire disc including the user data area is [[write-prohibited]] write protected (step S308). Otherwise, only the user data area is write protected (step S309). Also, in the step S305 if the write protection flag is not in the "write protection" state, the disc is not [[write-protected]] write protected (step S310).